



BANCO DE PORTUGAL
EUROSISTEMA

ACADEMIA
BANCO DE PORTUGAL

Introduction to R

Lisbon, April 22-24, 2019

3 days Course

Rita Sousa (DEE - BPLIM)

Training schedule

10:00 – 13:00

13:00 – 14:00 – Lunch

14:00 – 17:00

Training Programme

1. What is R?
 - ✓ Goals of the R Foundation
 - ✓ What is included in R
 - ✓ Advantages of using R
2. R Essentials
 - ✓ R environment
 - ✓ Main commands
 - ✓ Help functions
 - ✓ Main operators
 - ✓ Syntax rules
3. Packages and useful resources
 - ✓ Installing R Packages
 - ✓ Text editors for R
 - ✓ R Commander installation
 - ✓ Getting started with RStudio



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Introduction to R

4. Objects in R
 - ✓ Vectors, operations and arithmetic functions
 - ✓ Indexing
 - ✓ R sequences
 - ✓ Other objects: matrix, factor, list, data frame, functions
 - ✓ Control flows
 - ✓ Modes and attributes
 - ✓ Missing, unique and duplicated values
 - ✓ Sorting and comparison functions
5. Data Import and Export
 - ✓ Import Data into R: Read CSV, Excel, SPSS, Stata, SAS Files
 - ✓ Data editing
 - ✓ Editing or viewing data frames
 - ✓ Subset data
 - ✓ Database connection
 - ✓ How to use RODBC Package
6. Exploratory Data Analysis in R
 - ✓ Descriptive statistics
 - ✓ Tabulation functions
 - ✓ Data Aggregation
 - ✓ Linear Regression
 - ✓ Main graphical facilities
 - ✓ Introduction to ggplot2